Key Discussion Points for Special Town Meeting -July 30, 2009

Status of Perchlorate in the Aquifer

- Northern Perchlorate Plume (Groton Road): current data shows that the original mass of the plume remains beneath the Highway Garage site.
- Eastern Perchlorate Plume (North St. to Cote Well): perchlorate concentrations have remained steady and decreased slightly as water continues to flush through the area. The original source for this plume was contaminated stormwater runoff from the Highway Garage site.
- Northeasterly Plume (Groton Rd. to Keyes Pond): data shows that trace levels of perchlorate have been detected along Groton Road, east of North Street, indicating a residual plume migrating from the northern plume to Keyes Pond. Based on the flow net analysis, this plume will continue to the Cote Well. The Highway Garage Source Area Treatment System, while helping at the source, cannot address this plume.

Status of Treatment Systems

- Highway Garage Source Area Treatment System: operational in May 2009 and ongoing monitoring data shows perchlorate concentrations peaking at 280 ppb after 6 weeks of operation, supporting the need to treat the principal mass of the northern plume.
- Cote Well Treatment System: continues to operate at 200 gpm, upgrades to this system are limited due to treatment facility constraints.

Updated Hydrogeologic Information

- Flow Net Analysis: historical pumping tests and hydraulic assessments were analyzed to illustrate how water flows through the high yield aquifer that the Cote, Depot and Stepinksi Wells draw from. This analysis can be used to demonstrate the migration pathway of the perchlorate plumes and the effects of pumping at the Cote and Stepinski Wells. This information is the basis for analysis of the plumes and approach for treatment.
- Cote Well Cone of Influence: at a maximum pumping rate of 450 gpm the Cote Well radius will not capture the entire northern and eastern plume and impacted groundwater will continue to flow to the Stepinski Well.

Proposed Central Area Water Supply Treatment System

- Upgrade Capacity at the Cote Well: current filters limit the perchlorate treatment capacity to 200 gpm . Constructing a central treatment facility will enable maximum pumping capability
- Develop the Stepinski Well: this will allow pumping at 800 gpm to increase (along with the Cote Well) total remediation capability to 1250 gpm.
- Central Area Water Supply Treatment System: this system will handle 1,250 gpm from the Cote and Stepinski Wells and can be upgraded to handle flows from the Depot Road Well, if necessary.

Funding for Perchlorate Remediation

- Application for State Revolving Funds – through the Water Pollution Abatement Trust, including the potential to receive Economic Stimulus Funds – in the form of low rate financing and possible principal forgiveness.